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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,881	12/20/2001	Richard P. Mackey	42390P12247	4648

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EXAMINER	
DALEY, CHRISTOPHER ANTHONY	
ART UNIT	**PAPER NUMBER**
2111	

DATE MAILED: 08/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/028,881	MACKEY, RICHARD P.	
	Examiner	Art Unit	
	Christopher A. Daley	2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 December 2001* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This application has been examined. Claims 1-18 are pending. Claims 1,7, and 13 were amended.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1,7, and 13 are rejected under 35 U.S.C. § **102**(**e**) as being anticipated by Martwick patent number (US6336158).

4. As to claims 1,7, and 13, Martwick discloses a system, apparatus, and method comprising:

A bridge (108, Figure 1) coupled between a first bus (103) and a second data bus (102); a target device (110) coupled to the first data bus (103) at a data bus

address; a decoder, (where bridge device 108 includes a decoder, Col. 4, line 66 – Col. 5, line 2) to provide bus segment information to the bridge (108) independently of response to a bus transaction on the second data bus initiated by a source device (104);

Wherein the source device to transmit an encoded signal via a connection to the decoder, wherein the encoded signal to identify a bus segment being selected to receive the bus transaction and wherein the decoder generates the bus segment information based on the encoded signal (Martwick teaches of a source device such as 104 of figure 1 transmitting an encoded signal, (transaction address) to the decoder 108 of figure 1. Said decoder generates the bus segment address, figure 2, COL. 7, lines 5 - 65)

Wherein the bridge (108) comprises logic to forward the bus transaction on the first data bus (103) to the target device (110) based on the bus segment information. (The bridge 108 has the circuitry to enable forwarding of bus transactions between source and targets, Col. 5, lines 2 -9).

5. As to claims 2, 8, and 14, Martwick discloses a system, method, and apparatus wherein the bridge further comprises:

Logic to forward bus transaction on the first data bus to the second data bus (Bridge 108 enable bi-directional communication between devices coupled to either side of the bridge, Col. 5, lines 2 – 9)

Each forwarded transaction being addressed to a range of data bus addresses on the first data bus; (Col. 6, lines 40 – 48, Figure 5)

Logic to combine bus segment information from the decoder with a portion of a data bus address in the range of data bus addresses to provide a data bus address for a bus transaction forwarded to the first data bus.

(When a source initiates a bus transaction, the transaction address is sent to the decoder portion of the bridge device (108). Said decoder checks to see if this address is in the I/O map cache. If it is not, a process is followed (Figure 7) to retrieve relevant decode information. If it is present in the I/O map cache (106), the MSBs to point to a unique byte located in the cache memory. That byte contains the I/O decode map. The single bit with that map is selected by the three LSBs of the transaction address. For instance the first bit would be selected should the LSB be 000, or the 8^{th}. Bit would be selected should the LSB be 111. (Col. 7, lines 5 – 55, Figure1, Figure 5).

6. As to claims 3,9, and 15, Martwick discloses a system, method, and apparatus wherein the bus segment information comprises a first portion of the data bus address of the target device. Martwick discloses in Figure 5 an I/O map decode system in which the MSBs is used as a pointer to locate the first portion of device decode information in the I/O memory cache bank (Col. 7, lines 24 – 30, Figure 5).

7. As to claims 4, 10, and 16, Martwick discloses a system, method, and apparatus where each data bus address is comprises of a plurality of MSBs, and a plurality of

LSBs, and wherein the bridge further comprises the logic to combine the LSBs of the address with the bus segment information to provide the data bus address of the target device on the first bus. (Once the unique byte within the I/O memory cache has been accessed as stated in claim 2 above, the LSB address bits are used to choose which bit within the byte should be used, Col. 7, lines 35 – 40, Figure 5).

8. As to claims 5, 11, and 17, Martwick discloses that the bridge will forward a data bus transaction to the second data bus based upon a single value expressed in the most significant bits. (The LSB address of the device to receive the transaction is used to complete the final decode as it points to the MSB bit in the I/O decode map output byte. This selects the unique target to receive the transaction, Col. 7, lines 40 – 53).

9. As to claims 6,12, and 18, Martwick discloses a system, method, and apparatus wherein the system further comprise of one or more sources (110, and 111 Figure 1) to initiate a bus transaction on the second data bus having data bus addresses within the range of data bus address (I/O Decode Map 106, Figure 5), and wherein the source device (104) is coupled to the decoder (located in 108) to provide bus segment information in response to initiating a bus transaction on the second bus having a data address within the range of data addresses (The Bridge enables bi-directional communication between devices coupled to either side of the bridge and uses the same method as shared above to initiate and forward bus transactions from the second bus (102) to the first bus 103, Col. 5, lines 2 – 9).

Response to Arguments

Applicant's arguments filed June 10, 2005 have been fully considered but they are not persuasive. With regards to the applicant's argument on amended claim 1, that Martwick does not teach the connection and encoded signal feature, the examiner points to the teaching of Martwick teaches of a source device such as 104 of figure 1 transmitting an encoded signal, (binary format of the transaction address from processor 104) through the connection path from bus 101 through host bridge 107 and second bus 102 to the bridge/decoder 108 of figure 1. Said decoder generates the bus segment address, figure 2, COL. 7, lines 5 - 65.

With regards to the applicant's argument on independent claims 7, and 13, the same rebuttal as presented in claim 1 is presented, eliciting a repeat of the response to claim 1. Related dependent claims remain rejected.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Daley whose telephone number is 571 272 3625. The examiner can normally be reached on 9 am. - 4p m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571 272 3676. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CAD
8/11/2005

TIM VO
PRIMARY EXAMINER